DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD		\$	DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD			RRRRR RRRR RRRR RRRR RRRRR RRRRR RRRR RRRR	RRRRRRR RRRRRRR RRR RRR RRR RRR RRR RR
DDD DDD	TTT	SSS	DDD	DDD	TTT	RRR	RRR
DDD DDD DDD	††† †††	\$\$\$ \$\$\$	DDD DDD	DDD	††† †††	RRR RRR	RRR RRR
DDDDDDDDDDDD DDDDDDDDDDDD DDDDDDDDDDDD	††† ††† †††	\$	DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD	D D	††† ††† †††	RRR RRR RRR	RRR RRR RRR

VS:MMUUUUUUUSUMAS

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DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD		RRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR	AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	\$\$\$\$\$\$\$\$ \$\$\$\$\$\$\$\$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$	
LL LL LL LL LL LL LL LL LL LL		\$			

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TST\$DTRAST Table of con	tents	- DTR AST F	ROUTINES	J	15	16-SEP-1984 01:28:10	VAX/VMS Macro V04-00	Page	0
(2) (3) (4) (5) (6)	42 65 142 186 270	DECLARATIONS TST\$RECVAST_DTR - F TST\$XMITAST_DTR - F TST\$MAILAST_DTR - F TST\$INTEAST_DTR - F	TRANSMIT DATA READ MAILBOX	N MESSAGE AST AST ROUTINE	ROUTI	NE			

TV

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10 :*

11 :*

12 *

14 :*

15 :*

16 ;*

17 ;*

18 ;*

19 :*

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16-SEP-1984 01:28:10 5-SEP-1984 00:22:13 VAX/VMS Macro V04-00 [DTSDTR.SRC]DTRAST.MAR:1

Page (1)

.TITLE TST\$DTRAST - DTR AST ROUTINES 'V04-000'

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70123455678901 22222222222337 : FACILITY: DTS/DTR DECNET TEST PACKAGE

ABSTRACT: THIS MODULE CONTAINS QIO AND TIMER AST ROUTINES FOR DTR.

ENVIRONMENT: DTR RUNS IN USER MODE AND REQUIRES NETWORK PRIVILEGE.

AUTHOR: JAMES A. KRYCKA, CREATION DATE: 7-DEC-77

MODIFICATIONS:

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- DTR AST ROUTINES

16-SEP-1984 01:28:10 VAX/VMS Macro V04-00
TST$RECVAST_DTR - RECEIVE DATA MESSAGE A 5-SEP-1984 00:22:13 [DTSDTR.SRC]DTRAST.MAR;1
                65
                             .SBTTL TST$RECVAST_DTR - RECEIVE DATA MESSAGE AST ROUTINE
  0000000
                66
                             .PSECT TST$CODE
                                                        NOWRT
                   RA::
       0000
                67
                                                                 : SYMBOL FOR DEBUGGING PURPOSES
       0000
                68
       0000
                69
                70
       0000
                   ; FUNCTIONAL DESCRIPTION:
                71
       0000
       0000
                            NONE
       0000
                74
75
       0000
                     CALLING SEQUENCE:
       0000
                76
77
       0000
                            CALL
                                     #5,TST$RECVAST_DTR
                                                                 (INVOKED BY VAX/VMS AS AN AST)
       0000
       0000
                     INPUT PARAMETERS:
       0000
                80
       0000
                            4(AP)
                                     ADDRESS OF QIO PARAMETER BLOCK
       0000
       0000
                     IMPLICIT INPUTS:
       0000
       0000
                            NONE
       0000
       0000
                     OUTPUT PARAMETERS:
       0000
       0000
                            NONE
       0000
                89
       0000
                90
                     IMPLICIT OUTPUTS:
       0000
                91
                92
93
      0000
                            NONE
      0000
                94
      0000
                     COMPLETION CODES:
                95
      0000
                96
      0000
                            NONE
                97
      0000
      0000
                98
                     SIDE EFFECTS:
                99
      0000
      0000
              100
                            NONE
      0000
              101
      0000
              102
              103
      0000
003C
      0000
              104
                             .ENTRY TST$RECVAST_DTR,^M<R2,R3,R4,R5> ; ENTRY POINT
                                                                  CHECK 1/0 STATUS CODE
                            CHECK_IOSB WATST$GQ_RECVIOSB
       0002
              105
                                     R1.40$
W^TST$GL_RECVDATA
  E9
       000A
              106
                            BLBC
                                                                   BRANCH ON FAILURE
      000D
              107
                                                                   INCREMENT COUNTER
                            INCL
       0011
               108
                            $CASEB
                                     SELECTOR=WATST$GB_TYPE,DISPL=<-
               109
                                      305-
       0011
                                                                    NO ACTION REQUIRED
                                     205-
       0011
               110
                                                                    SEQUENCE CHECK
                                     105-
       0011
               111
                                                                    SEQUENCE AND PATTERN CHECK
       0011
               112
                                                                    ECHO MESSAGE
  D6
30
                                     WATSTSGB_XMITBUF
WATSTSGG_RECVIOSB+2,-
                            INCL
       001D
               113
                                                                 : UDPATE MESSAGE SEQUENCE NUMBER
       0021
                            MOVZWL
               114
       0025
                                     W^TST$QBR_XMTDATA+TST$QB_BUFLEN; SET SIZE TO ECHO
               115
  0E
       0028
                            INSQUE
                                     W^TST$QBR_XMTDATA,-
               116
                                     AWATSTSQB_QHEAD+4
       002C
               117
                                                                           QUEUE XMT REQUEST
  11
30
02
       002F
0031
                                                                   JOIN COMMON CODE
                            BRB
                                     30$
               118
                            MOVZWL
               119 105:
                                     WATSTSGW_SIZE,RO
                                                                   GET MESSAGE SIZE
              120
                            SUBL2
CMPC3
                                     #4,R0
                                                                   CALCULATE SIZE LESS SEQUENCE #
       0036
```

RO, WATSTSGB XMITBUF+4,- : COMPARE EXPECTED PATTERN

Page

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01F58043 8F

D0

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136 #DTS\$_BADPAT,W^TST\$GL_STATUS 0072 04 RET EXIT 138 RECVAST_ERROR1: 0073 SEQUENCE CHECK ERROR 0000°CF 0073 139 01F5804B 8F 00 #DTS\$_BADSEQNUM, W^TST\$GL_STATUS ; EXIT MOVL 04 007C 140 RET.

```
- DTR AST ROUTINES
16-SEP-1984 01:28:10 VAX/VMS Macro V04-00
TST$XMITAST_DTR - TRANSMIT DATA MESSAGE 5-SEP-1984 00:22:13 [DTSDTR.SRC]DTRAST.MAR;1
                         142
                                       .SBTTL TST$XMITAST_DTR - TRANSMIT DATA MESSAGE AST ROUTINE .PSECT TST$CODE NOWRT
            000007D
                007D
                         144
                007D
                         145
                007D
                         146
                             : FUNCTIONAL DESCRIPTION:
                007D
                007D
                         148
                                       NONE
                007D
                         149
                007D
                                CALLING SEQUENCE:
                         150
                         151
                007D
                         152
153
154
                007D
                                       CALL
                                                 #5,TST$XMITAST_DTR
                                                                              (INVOKED BY VAX/VMS AS AN AST)
                 007D
                 007D
                                INPUT PARAMETERS:
                         155
                 007D
                007D
                         156
                                       4(AP)
                                                ADDRESS OF QIO PARAMETER BLOCK
                007D
                         157
                007D
                         158
                                IMPLICIT INPUTS:
                007D
                         159
                007D
                         160
                                       NONE
                007D
                         161
                         162
163
                007D
                                OUTPUT PARAMETERS:
                007D
                007D
                         164
                                       NONE
                007D
                         165
                007D
                         166
167
                                IMPLICIT OUTPUTS:
                007D
                         168
169
170
                007D
                                       NONE
                007D
                007D
                                COMPLETION CODES:
                007D
                         171
                         172
173
                007D
                                       NONE
                007D
                007D
                         174
                                SIDE EFFECTS:
                         175
                007D
                        176
177
                007D
                                       NONE
                007D
                        178
179
                007D
                007D
         0004
                007D
                         180
                                        .ENTRY TST$XMITAST_DTR,^M<R2>
                                                                                ENTRY POINT
                         181
182
183
                                       CHECK_IOSB WATST$GQ_XMITIOSB
BLBC R1,10$
                007F
                                                                                CHECK I/O STATUS CODE
  04 51
            E9
                0087
                                                                                BRANCH ON FAILURE
0000°CF
            D6
                A800
                                       INCL
                                                 W^TST$GL_XMITDATA
                                                                                INCREMENT COUNTER
            04
                008E
                         184 105:
                                       RET
                                                                              : EXIT
```

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C 16
            - DTR AST ROUTINES

16-SEP-1984 01:28:10 VAX/VMS Macro V04-00
TST$MAILAST_DTR - READ MAILBOX AST ROUTI 5-SEP-1984 00:22:13 [DTSDTR.SRC]DTRAST.MAR;1
                                                                                                                                                       (5)
                                                                                                                                              Page
                                                         IST$MAILAST_DTR - READ MAILBOX AST ROUTINE
              0000008F
                              187
                                               .PSECT TST$CODE
                                                                                 NOWRT
                    008F
                              188
                    1800
                              189
                             190
                                     FUNCTIONAL DESCRIPTION:
                              191
                              192
193
                    008F
                                               NONE
                    008F
                    008F
                                      CALLING SEQUENCE:
                              195
                    008F
                    008F
                              196
                                               CALL
                                                          #5,TST$MAILAST_DTR
                                                                                            (INVOKED BY VAX/VMS AS AN AST)
                              197
                    008F
                              198
                    008F
                                      INPUT PARAMETERS:
                              199
                    008F
                              200
                    008F
                                               4(AP)
                                                          ADDRESS OF Q10 PARAMETER BLOCK
                              ŽÕ1
                    008F
                              202
                    008F
                                      IMPLICIT INPUTS:
                              203
                    008F
                    008F
                              204
                                               NONE
                    1800
                              ŽÕ5
                    008F
                                      OUTPUT PARAMETERS:
                              207
                    008F
                              208
                    008F
                                               NONE
                              209
                    008F
                    008F
                                      IMPLICIT OUTPUTS:
                              211
                    008F
                    008F
                                               NONE
                    008F
                    008F
                                      COMPLETION CODES:
                   008F
                              215
                   008F
                                               NONE
                   008F
                   008F
                                      SIDE EFFECTS:
                              219
                   008F
                              220
                   008F
                                               NONE
                              ŽŽĬ
                   008F
                              008F
                   008F
                                                         TST$MAILAST_DTR,^M<R2,R3,R4,R5,R6,R7>; ENTRY POINT
TST$EXAM_MAIL ; EXAMINE THE MESSAGE
R6, MMSG$_INTMSG ; IS IT AN INTERRUPT MESSAGE
NOT_INTE_MSG ; NO
W^TST$GL_RECVINTE ; YES, INCREMENT COUNTER
SELECTOR=W^TST$GB_TYPE,DISPL=<-;
NO_ACTION_REQUIRED
                                               .ENTRY
           OOF C
                   008F
    FF6C'
              30
                    0091
                                               BSBW
              BÍ
                    0094
                                               CMPW
       56
                                                                                               IS IT AN INTERRUPT MESSAGE?
                    0097
              12
                                               BNEQU
0000'CF
                    0099
              06
                                               INCL
                    009D
                                               SCASEB
                    009D
                    009D
                                                          20$-
                                                                                                SEQUENCE CHECK
SEQUENCE AND PATTERN CHECK
                    009D
                                                          105-
                    009D
                                                                                                ECHO MESSAGE
                                                         W^TST$GB_INTEBUF
(R7), W^TST$QBR_XMTINT+-
TST$QB_BUFLEN
W^TST$QBR_XMTINT,-
aw^TST$QB_QHEAD+4
                    00A9
0000'CF
                                               INCL
                                                                                               UDPATE MESSAGE SEQUENCE NUMBER
              D6
              9Å
                    OOAD
                                               MOVZBL
      67
                    00B2
                                                                                             :SAVE SIZE OF INTERRUPT MESSAGE
                    00B2
0000°CF
              0E
                                               INSQUE
                                                                                               QUEUE UP INTERRUPT XMT REQUEST JOIN COMMON CODE
0004'DF
                    0086
                    0089
              11
                                               BRB
                                               MOVZBL
SUBL 2
                                                          (R7) R0
                                                                                              GET INTERRUPT MESSAGE SIZE CALCULATE SIZE LESS SEQUENCE #
              94
                    00BB
                                   105:
       67
              (2)
                    ÖÖBE
```

RO, WATSTSGB_INTEBUF+4,-; COMPARE EXPECTED PAITERN

CMPCS

AST	- DTR TST\$MA	AST ROUTIN	ES - READ	MAILBOX	AST ROUTI	16-SEP-1984 5-SEP-1984	01:28:10 00:22:13	VAX/VMS Mac	ro V04-00 DTRAST.MAR;1	Page	7 (5)
05 A7 49 0000°CF 01 A7	01 0	00C6 243 00C8 244 00CA 245 00CE 246	20 \$:	BNEQ CMPL	1(R7)	RECVINTE,-	; AGA ; BRAN ; COMP ; AGA	INST ACTUAL CH ON PATTER ARE EXPECTED INST ACTUAL	PATTERN RN ERROR D SEQUENCE # SEQUENCE # NCE ERROR		
48 0000000018f	12 0	0000 247 0002 248 0002 249 0008 250	30\$:	BNEQ MOVL	MAILAST_E	ALL BUF					
0000°CF 0000°CF 0004°CF	0E 0	0008 250 0008 251 000f 252 00E2 253		INSQUE SWAKE_S	98-12120F	R RCVMAIL+TS1 RTRCVMAIL,- B QHEAD+4		N ; SET READ ; QUEUE MAI USER LEVEL	SIZE ILBOX READ		
	04 0	00ED 254 00F0 255 00F1 256	NOT_INT	CHECK_S RET E_MSG:	SS	ATCTCC: 1 1 1 N/V	; CHEC ; EXIT	K STATUS COL			
0000°CF	96 0 0	00F1 257 00FD 258 0100 259 0104 260 010F 261		SCANCEL CHECK S INCB SWAKE S CHECK S RET S ERROR2: MOVL RET SERROR1: MOVL	S CHANEW	ASTFLAGS	CHAN; CAN ; CHEC ;NOTE ;WAKE	K STATUS COL END OF TEST USER LEVEL	DING LINK I/O	KEMOE212	
0000'CF	04 0)112 262)113 263)113 264	MAILAST	CHECK_S RET _ERROR2:	; ; #ntce dai	DPAT,W^TST\$GI	; EXIT ; PATT	K STATUS COL ERN CHECK EF			
	04 0	1110 265 1110 266	MAILAST	RET ERROR1:	#015#_BAL		; EXIT	IENCE CHECK E	ERPOR		
0000°CF 01F5804B 8F	00 0 04 0)11D 267)126 268		RET	MO129 RAL	SEQNUM,W^TS	EXIT	15			

0000'8F

0000'CF 0004'DF

04 51 0000 CF

105:

RET

.END

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```
- DTR AST ROUTINES 16-SEP-1984 01:28:10 VAX/VMS Macro V04-00 TST$INTEAST_DTR - TRANSMIT INTERRUPT MES 5-SEP-1984 00:22:13 [DTSDTR.SRC]DTRAST.MAR;1
                                                                                                                      Page
                                .SBTTL TST$INTEAST_DTR - TRANSMIT INTERRUPT MESSAGE AST ROUTINE .PSECT TST$CODE NOWRT
                : ++ ; FUNCTIONAL DESCRIPTION:
                               NONE
                        CALLING SEQUENCE:
                               CALL
                                          #5,TST$INTEAST_DTR
                                                                         (INVOKED BY VAX/VMS AS AN AST)
                        INPUT PARAMETERS:
                               4(AP)
                                         ADDRESS OF QIO PARAMETER BLOCK
                        IMPLICIT INPUTS:
                               NONE
                        OUTPUT PARAMETERS:
                               NONE
                        IMPLICIT OUTPUTS:
                               NONE
                        COMPLETION CODES:
                               NONE
                        SIDE EFFECTS:
                               NONE
0004
                                         TST$INTEAST_DTR, M<R2>
#SS$_NOSOLICIT, =
                                .ENTRY
                                                                       ; ENTRY POINT
  B1
                                CMPW
       012D
0132
0134
0138
013B
                                          TST$GQ_INTEIOSB
                                                                         CHECK FOR REFUSAL DUE TO NO SOLICIT
  12
0E
                               BNEQU
                                                                         SKIP IF NOT THE CASE
                                         WATSTSQBR_XMTINT, -
awatstsqb_qhead+4
                                INSQUE
                                                                         ; REQUEUE REQUEST
                314
315
                               SWAKE_S
CHECK_SS
                                                                         TELL MAINLINE ABOUT IT
                316
317
318
319
320
321
322
  04
                               RET
                     5$:
                               CHECK_IOSB WATST$GQ_INTEIOSB BLBC R1,10$
                                                                         ; CHECK I/O STATUS CODE
       0152
0155
0159
015A
  E9
D6
04
                                                                           BRANCH ON FAILURE
                                INCL
                                          W^TST$GL_XMITINTE
                                                                           INCREMENT COUNTER
```

: EXIT

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(6)

E 16

TST\$DTRAST Symbol table = 00000003 **\$\$**COUNT = 01F58043DTS\$_BADPAT = 01F58043 DTS\$_BADSEQNUM = 01F5804B K_LIST_MEB
MAILAST_ERROR1
MAILAST_ERROR2
MSG\$_INTMSG
NOT_INTE_MSG = 00000000 0000011D R 00000113 R ŎŽ = 00000035000000F1 R RA 00000000 RG RECVAST_ERROR1 RECVAST_ERROR2 SS\$_NOSOLICIT SYS\$CANCEL 00000073 R 00000069 R ***** GX ****** SYSSWAKE ***** GX TSTSCHECK_IOSB TSTSCHECK_SS ****** ******* TSTSEXAM MAIL TSTSEXAM MAIL
TSTSGB_ASTFLAGS
TSTSGB_INTEBUF
TSTSGB_RECVBUF
TSTSGB_XMITBUF
TSTSGL_RECVDATA
TSTSGL_RECVINTE
TSTSGL_XMITDATA
TSTSGL_XMITINTE
TSTSGQ_INTEIOSB
TSTSGQ_RECVIOSB
TSTSGQ_XMITIOSB
TSTSGW_LINKCHAN
TSTSGW_SIZE
TSTSINTEAST_DTR
TSTSK_MAILBUF ****** ****** ****** ****** ****** ****** ****** ****** ***** ****** ****** ****** ****** ****** ****** ***** 00000127 RG 0000008F RG 00000000 RG 0000007D RG 02

TSTSDTRAST Psect synopsis

- DTR AST ROUTINES

16-SEP-1984 01:28:10 VAX/VMS Macro V04-00 5-SEP-1984 00:22:13 [DTSDTR.SRC]DTRAST.MAR;1

Page 10 (6)

Psect synopsis!

PSECT name Allocation PSECT No. Attributes ABS 00000000 00 (0.) NOPIC USR CON ABS LCL NOSHR NOEXE NORD NOWRT NOVEC BYTE Ŏ.) SABSS 0000000 ŎĬ 1.) NOPIC USR CON ABS LCL NOSHR EXE RD WRT NOVEC BYTE TST\$CODE 0000015A 346.) NOPIC USR CON LCL NOSHR EXE RD NOWRT NOVEC BYTE

Performance indicators !

Phase	Page faults	CPU Time	Elapsed Time
Initialization Command processing	29	00:00:00.06	00:00:00.82
	104	00:00:00.55	00:00:02.81
Pass 1	201	00:00:04.71	00:00:15.61
Symbol table sort		00:00:00.20	00:00:00.28
Pass 2	74	00:00:01.22	00:00:04.12
Symbol table output		00:00:00.05	00:00:00.06
Psect synopsis output	6	00:00:00.02	00:00:00.02
Cross-reference output	418	00:00:00.00	00:00:00.00
Assembler run totals		00:00:06.81	00:00:23.72

The working set limit was 1050 pages.
20707 bytes (41 pages) of virtual memory were used to buffer the intermediate code.
There were 20 pages of symbol table space allocated to hold 195 non-local and 12 local symbols.
384 source lines were read in Pass 1, producing 28 object records in Pass 2.
25 pages of virtual memory were used to define 21 macros.

! Macro library statistics !

Macro library name

Macros defined

_\$255\$DUA28:[DTSDTR.OBJ]DTSDTR.MLB;1 \$255\$DUA28:[SYSLIB]STARLET.MLB;2 TOTALS (all libraries) 7 8 15

307 GETS were required to define 15 macros.

There were no errors, warnings or information messages.

MACRO/LIS=LISS:DTRAST/OBJ=OBJS:DTRAST MSRCS:DTPREFIX/UPDATE=(ENHS:DTPREFIX)+MSRCS:DTRAST/UPDATE-(ENHS:DTRAST)

0122 AH-BT13A-SE VAX/VMS V4.0

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